

TECHNICAL DATA SHEET

TECHNYL C 216 V45 BK 34N

TECHNYL C 216 V45 BK 34N is a polyamide 6, reinforced with 45% of glass fibre, for injection moulding. This grade has been optimized to have good impact strength, a nice surface aspect and being easy to paint.

General

Feature	High dimensional stability	High stiffness
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Consumer good application	Sport
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF45
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	Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.51
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.65

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	14500 / 9300
Stress at break		ISO 527-1/-2	MPa	210 / 135
Strain at break		ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	13500 / 8000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	340 / 170
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	90 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	13 / 20

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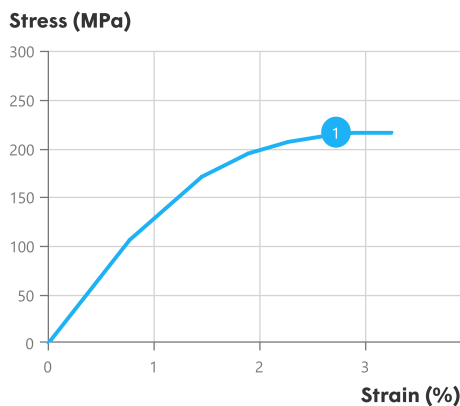
	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	210

*: conditioned according to ISO 1110

Processing conditions

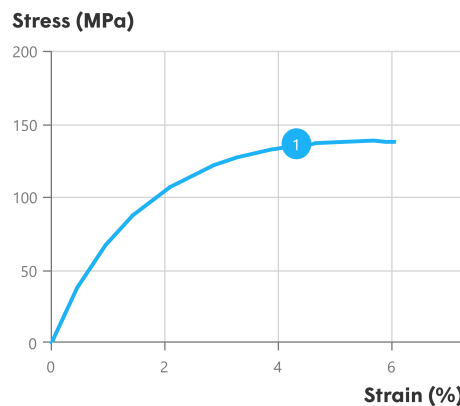
Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	235 - 240 °C
Middle temperature	240 - 250 °C
Front temperature	250 - 260 °C
Recommended mould temperature	60 - 90 °C

Stress-strain, dry



Temperature (°C)	
1	Spannung
2	

Stress-strain, conditioned



Temperature (°C)	
1	Spannung
4	

Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 / 1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 / 1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

Disclaimer

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